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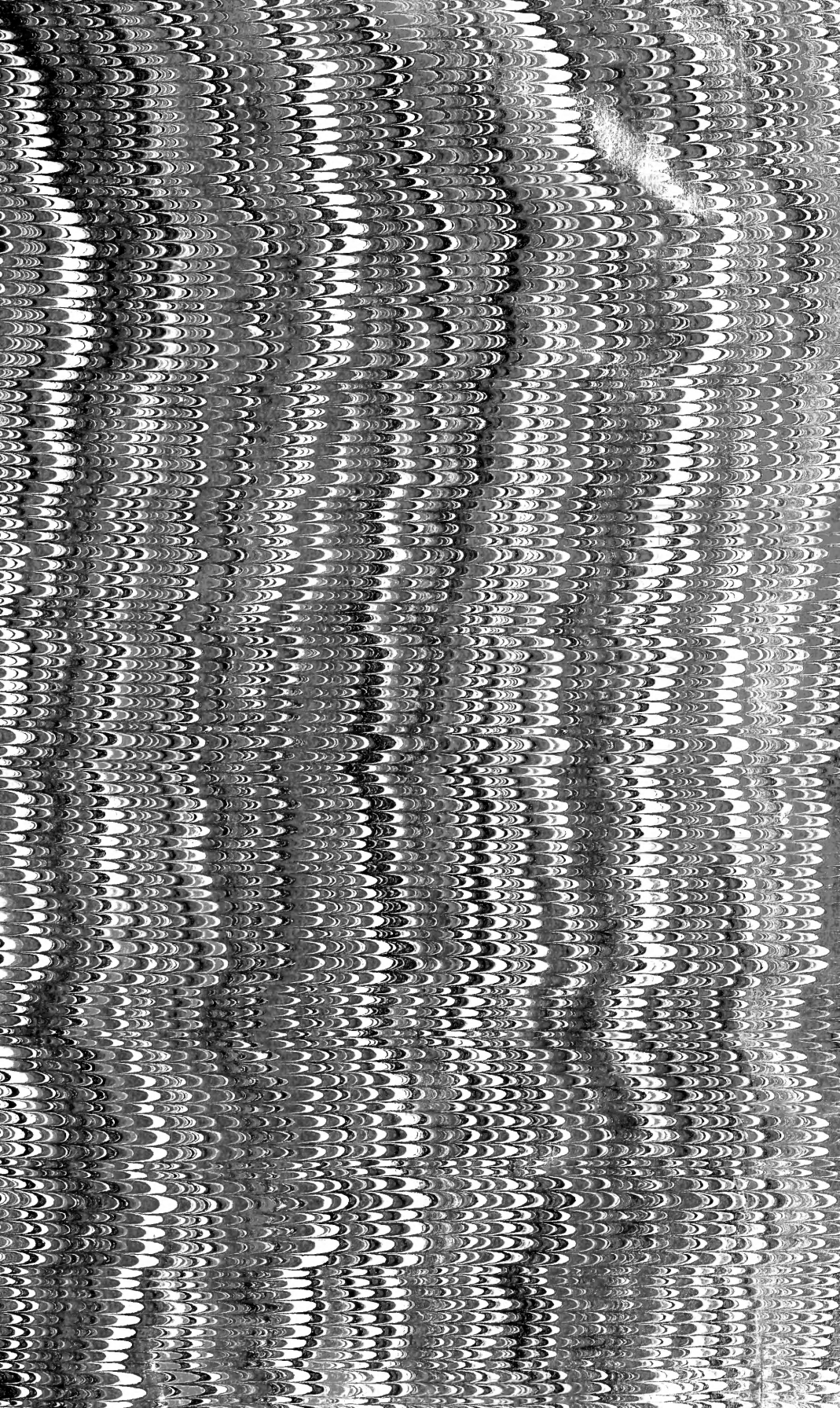
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AN
INTRODUCTORY LECTURE,

DELIVERED BEFORE THE

AMERICAN INSTITUTE OF THE CITY OF NEW-YORK,

AT CLINTON HALL,

ON THE EIGHTH OF JANUARY, 1835,

BY *addres* T. B. WAKEMAN.
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NEW-YORK:

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INTRODUCTORY LECTURE.

THE duty of commencing a series of lectures before the members of the American Institute has been assigned to me. It was an unexpected honor—an honor for which I feel grateful. And were I capable of doing justice to the occasion, it would be one of the proudest circumstances of my life. But while I feel conscious of my inability to *say* what *ought to be said*, I am at the same time satisfied that, as an early and devoted member, every indulgence will be extended to me, and that my sincerity in the cause will afford an ample apology for every imperfection.

It is difficult duly to appreciate the bearings, influence, and extended importance of this association—the American Institute—intended not to be limited to a single state, nor to any great section of our country, but a national establishment, whose influences are designed to be spread to the utmost boundaries of our republic. Located in the city of New-York—the heart of the nation—a place of all others calculated, under proper direction, for a great, powerful, and eminently useful institution, capable of extending its benefits, not only to the present inhabitants of these United States, but to future generations.

The charter under which we are authorized to act, was granted the 2d of May, 1829. It is to the members a perpetual bond, sanctioned by the supreme power of the State. The objects intended to be accomplished through your exertions, and instrumentality, are plainly recounted. They are as follows—“for the purpose of encouraging and promo-

ting domestic industry in this State, and the United States; in agriculture, commerce, manufactures, and the arts, and any improvements made therein, by bestowing rewards, and other benefits on those who shall make any such improvements, or excel in any of the said branches, and by such other ways, and means, as to the said corporation, or the trustees thereof, shall appear to be most expedient.”

The association is also empowered to make By-Laws for the purpose of carrying into effect the objects just quoted. The legislature intended to cover the broad ground of political economy. They foresaw the vivifying influences, which, under able management, such an institution must exert, on invention, the arts, and industry in general. They foresaw the knowledge it was calculated to gather and diffuse. Time has already, partially, verified their anticipations. But much remains to be accomplished.

And here the questions naturally present themselves,—what has the American Institute already done, and to what purpose have these ample powers, conferred, been exerted? And 2d, what further remains to be done?

Among other things which have grown out of this Institution, since its organization, are the written and printed communications, either voluntary or prompted, from individuals and scientific institutions. The practical and learned managers of the Royal gardens in Italy, and some of the most distinguished philosophers in France, have favored us with the fruits of their researches and experience. Prac-

tical individuals and affiliated institutions, in our own country, have aided—their rich contributions have poured in, for our gratification, and instruction.

At our stated and other meetings, a great variety of reports have been made on subjects intimately connected with the prosperity of the country—on cotton cloths, and yarns, on silks, oil cloths, glass, and cabinet wares, and ship building, on the manufacture of leather, shoes, and on the cultivation of indigo, cash duties, &c. : embracing a great number of facts, collected with persevering industry, and arranged with skill and care. These reports have excited discussions, among the members. These discussions have elicited ideas which would have laid dormant forever. The advantages, springing from such discussions, are of inestimable consideration.

The human mind is incomprehensible to itself. Ideas, in their dormant condition, are as valueless as nonentities. And the mind, in an unexcited state, is as unconscious of their existence, as the flint is of the fire it contains; when heated, and brought into action by discussion, thought creates thought—and ideas succeed ideas, the mind knows not how—and the debater is often amazed, at the fertility of his own conceptions, and the creative powers of his own invention. Many of the reports, made to the Institute, were intended to fortify the necessity of the protective system. A powerful and dangerous foreign influence had been exerted in this country, against governmental protection.

For some time previous to the incorporation of this Institute, the British press had continually teemed with pamphlets and publications, intended only for exportation, (for they were never practised upon at home,) filled with hosannas to free trade.

They recommended, with all the ardor of sincerity, a most amiable reciprocity—an unrestricted interchange of the commodities of all climes, and all countries—at the same time that they clung with scrupulous tenacity to their own enactments, that excluded from *their* markets, any, and every article, produced within the limits of their wide spread empire. Their pretended relaxations were generally so graduated, as not to impair an iota of their restrictive policy; or if a single exception was permitted, it was under

stipulations which gave them decided advantages, and strengthened their gigantic monopoly.

The syren sounds of free trade, perfect reciprocity, and the painted commercial millenium in perspective, deluded some, vast numbers, from hopes of gain; and others, for political preferment, rallied round the free trade standard. They contended that the expediency of pursuing manufactures in this country must be tested by their ability in their infancy, to compete with establishments which had been nurtured into existence, and grown and strengthened for ages. The apprentice was required, on his first entrance into the workshop, to do more than the duties of an accomplished journeyman—for we had, in many branches of manufactures, every thing to learn, and were wholly destitute of even the necessary tools.

These suicidal doctrines, aimed at the vitals of American industry, were repelled by facts, analogies, and arguments contained in authentic reports read to this Institute, that never have been refuted. These reports show that our mechanical and manufacturing establishments have uniformly flourished under the fostering influence of protection. The application of this stimulus brought capital, skill, industry, and economy, into operation, and the consumer was soon supplied with a cheaper and better article. The reports name the exact prices of particular articles, from an early period of our country's history, down to the present time; and they also note all the intermediate advances of our tariff, thereby demonstrating as far as facts and analogies can demonstrate, that increased protecting duties, at every successive stage of their increase, have conduced to reduce prices, and benefit the consumer; and at the same time promote the general prosperity, by enabling *all* to obtain the comforts of life, with greater facility, and with less toil, than before. There is a remarkable uniformity, as exhibited in these reports, in the decline of prices at each successive advance of the tariff of duties. Facts likewise show, that the prices of those articles which have not received the favor of protecting laws, have, to a great extent, and with remarkable uniformity, *maintained* their prices; or if they have declined in prices, their decline has not been at all proportioned

to the decline on those articles which have been fostered by protection. Home competition has not been brought to bear upon them: our home supply, in the absence of protection, has been obtained from abroad, and accordingly in the absence of protection, and consequent competition in production, *here*, the foreign producer has been enabled, in a great measure, to affix prices in accordance with his own interest. If there are any exceptions, those exceptions are shown to arise from some peculiar qualities in the articles themselves, not attendant on ordinary cases—such as bulkiness, liability to breakages, being of a perishable nature, or subject to injury from sea voyages, or some other causes,—which, in effect, gives to the American manufacturer, a palpable advantage over his foreign competitor, and in their influences afford a substitute for governmental protection. These reports have all been published, and circulated far and wide, and at a time when heterodox doctrines were gaining ground, and no doubt have had their influence in rescuing our manufacturers from the destruction that was designed for them. The public addresses which we have witnessed at our annual public exhibitions, by distinguished individuals from other states, afford specimens of oratory and talent of the highest order. They are masterly efforts, in favor of encouraging American industry. The principles of protection are happily elucidated and enforced. They are replete with facts and documents, showing, among other things, that one of the paramount objects in forming the constitution of the United States, was the protection of American labor against the sweeping rivalry of older nations. That protected labor must form the only firm and durable basis of lasting independence. They all breathe the purest spirit of patriotism. They were delivered to crowded audiences, they have all been published, and republished, and distributed to every part of our country.

The efforts of the Institute have not been confined to the collection of facts, and to the induction of principles; they have labored to advance the cause of domestic industry by other and more direct means: by procuring, and distributing, gratuitously, large quantities of the White Mulberry Seed for the culture of Silk.

The merit of proposing this subject,

and much of the praise due to the labors attending the reports produced before the Institute, the procuring and distributing of the mulberry seeds, and experiments on the silk-worm, in justice is due to our deceased friend, and late fellow laborer, DOCTOR FELIX PASCALIS.* A passing notice of the prominent characteristics of this venerated man, who has so often met us, and so often entertained and instructed us, it is hoped will not be unacceptable. It falls to the lot of few men, of any age, to have the opportunity, industry, and capacity, to encompass such a mass of learning as was encompassed by Dr. Pascalis. Moral courage, and enduring perseverance, however, were the distinguishing characteristics of his mind. Thus qualified, he early enlisted as a combatant against error and imposture, and in favor of those objects of utility, which he believed would conduce to the comfort and happiness of man. In such a cause he did not hesitate to jeopard every thing. At one period of his life you might have seen him in his native France, in possession of a benefice, surrounded with friends, and with an ample income, that supplied him with every comfort his desires could suggest. "The road to power and wealth lay open before him." He at the same time could not but witness the detestable impostures and corruptions of the church. At the risk of independence, and all his flattering prospects, he manfully came forth and exposed them. As might have been expected, he fell a victim to their fury, and was formally excommunicated. Had he truckled to corruption, he might have revelled in luxury. His moral sense revolted, and his courage defied hosts of venal slaves, whose consciences yielded to the unprincipled biddings of a depraved hierarchy, and who joined in proscribing him. He brought with him to America the same fearless spirit—the same inherent desire to do good. Soon after his arrival he encountered that dreadful scourge of our populous cities—the yellow fever. An idea prevailed that it was contagious. Friends and relations were abandoned to suffering and death. Doctor Pascalis, believing it was an error, at the risk of his life, tried experi-

* Many of the facts hereafter stated in relation to Doctor Pascalis are derived from that accomplished biographer and scholar, Col. Samuel L. Knapp, who is a member of the Institute.

ments, among the dying and dead, in all the perilous shapes and ways that could be thought of. The result afforded abundant proof, in his mind, that yellow fever depended on local causes, and that the masses of putrifying bodies in our graveyards, situated in the midst of our dense population, were a principal cause of its prevalence here. He did not hesitate to encounter the prejudices of the ignorant, or the power of the rich, by his efforts in preventing the burials, and by continued perseverance in explaining and enforcing its importance to the health of the city. His theory eventually prevailed, and, conformably to his often repeated predictions, our city has escaped this awful visitation.

In the early stages of this Institute, when it was pronounced by some, "a small tariff concern," and by others "a humbug," Doctor Pascalis applied to become a member. His first efforts were directed to the production of silk. From the groves of mulberries in his native land, he had often, with his own hands, gathered the foliage that sustains the worm. He knew the importance of commencing at once in procuring the aliment on which it exists. Accordingly, at the first meeting of the institution, after the adoption of a constitution, before its incorporation, (March, 1828,) he introduced a resolution on the subject of silk, and in June following a regular report was made, and a permanent silk committee was constituted. The July following, the committee recommended the importation of a large quantity of white mulberry seed from France, which was approved, and by the agency of Doctor Pascalis, who had previously been made an honorary member, large quantities were imported at the expense of the Institute. At a meeting on the 4th of December, 1828, their arrival was announced. An address to the public was prepared on the subject and published. The seeds were gratuitously distributed, sufficient for many thousand trees. From these seeds innumerable mulberries are growing in many parts of our country. In 1828 he also procured from France three flourishing Chinese mulberry plants, of great value, the first ever imported into this country. They had been introduced into France the year before. From these plants, and others obtained soon after, for Mr. Parmentier, they have been multi-

plied almost beyond credibility. And thus the way is prepared for the raising of silk-worms to an incalculable amount. The necessary incipient steps have been taken towards the manufacture of that precious commodity which every year drains our country of so great a proportion of her annual earnings. The subject of silk, as our journals show, occupied the attention of Dr. Pascalis, from that period until July, 1833, when his useful life terminated. His experiments, showing the effects of electricity on the silk-worm, were highly complimented in the French journals, and his two volumes dedicated to the American Institute, on the mulberry, and the raising of silk-worms, are permanent memorials of his accurate knowledge of the subjects on which he has written. To his learning and industry the Institute is indebted for much of its celebrity, and the country is under *deep* obligations to him for having given an early impulse to a branch of industry in which the whole nation is *deeply* interested. The exhausting effects of our heavy importations of silks demand some immediate and powerful corrective. Twenty-nine millions two hundred and twenty-six thousand eight hundred and four dollars of the hard earnings of our citizens were paid to foreign nations for foreign silks alone, in the years 1831, 1832, and 1833.

The produce which can be spared for exportation, by all the hard-working farmers in all the northern and middle states, will not more than balance our silk account. It is true, that a portion of these silks are exported; but after deducting the amount exported, which will average \$1,758,450 per annum, for the 3 years before specified, there was consumed, within the United States, \$7,933,818, on an average, of each year,—\$1,495,938 *more*, each year, than was received from all the wheat, Indian corn, rye, oats, and other small grains, biscuit, potatoes, flax-seed, and hops, exported in 1833, to every part of the world. *Double* the amount of silks imported might be raised and manufactured in our own country, chiefly by women, children, and infirm persons, without materially detracting from any of the other productive branches of industry. The aliment of the insect that afforded this luxury was first to be supplied, and the efforts of the Institute were for years most assiduously and suc-

cessfully applied in accomplishing this object. Individuals followed the example of importing seeds, and at this time, and by these means, millions of thrifty mulberries are now growing in our country, affording sufficient nutriment for incalculable numbers of silk-worms. If the American Institute had done no other act of public benefit, its members would have been entitled to the gratitude of their country.

But the labors of the Institute have not stopped here. Under its auspices seven successive annual fairs have been held; and, on the best computation, full twenty thousand different specimens exhibited. No branch of industry was unrepresented. Most of these articles were of a quality that would have commanded admiration in countries that commenced their culture or manufacture before we were a nation. Such was the display at the first fair, in particular, that it was confidently denied that the articles were American. The community, generally, had not kept pace at all with the rapid march of mechanical and manufacturing improvements.

The interest taken in these exhibitions is shown by the throngs that resorted to them. From the best estimates afforded, more than 200,000 persons were visitors, at the several exhibitions referred to. The brilliancy of these exhibitions attracted the attention of all classes of our citizens. What was said in the official report of the third annual fair, will apply to all. The managers observe, that "they cannot but contemplate the third annual fair of the Institute with pride and pleasure. To those who sought recreation and amusement, and looked no farther, it afforded innocent gratification."

"Those who can feel a patriotic pride in beholding the progress of their country in manufactures, and the arts, and an increase of its self-sustaining resources, *in advance* of their best hopes, realized more animating and exalted sensations. The gay and fashionable were delighted; the middling classes, our city yeomanry, the steady supporters of order, law, and religion, enjoyed a rich feast. The curiosity of the inventor and artist found food to satisfy itself among the almost infinite variety that ingenuity and skill had brought into existence. The emulating mechanic saw the choice productions of his workshop duly appreciated, and the

evidence of their merit promulgated. Those who had been persuaded that we are too young a people to enter the course in competition with the old world, were satisfied that, though comparatively in infancy, our vigor, enterprise, and genius, have already accomplished results which have cost other nations centuries, and will soon enable us to distance them in the race of glory. To the exalted individuals, the patriotic chief magistrates and judges of our sister states, who had purposely attended, and to our own distinguished citizens, *in and out of office*, who were present, countenancing and encouraging our exertions, we tender our thanks. "The praise of illustrious men," say the managers in conclusion, "has *always* been a most acceptable reward to genius and enterprize; and their presence, and countenance, will *always* excite to higher efforts, and still more beneficial undertakings."

These fairs were peculiarly timely in their influences. Many of them were held while the great national question of protection or abandonment was pending; and for the purpose of convincing the most obdurately incredulous, a list of the principal articles, with the duties, was appended to the report referred to, which confirmed the long disputed facts, that the same articles which were early and effectually protected, are the very articles now fabricated in the greatest abundance and perfection, and the very same articles procured by the consumer, with the least cost—confirming, most conclusively, the numerous former reports made to the Institute in favor of protecting duties. The influence of these exciting exhibitions, through all the departments of productive industry, who can calculate? They are all intimately connected, and flourish and decline together. These exhibitions have created a confidence among capitalists in our ability to manufacture, and thereby ingenuity has been better and more certainly rewarded. The intensity of the competition has operated through all the departments of the workshop—from the owner to the journeyman, down to the humblest apprentice,—and carried genius to its utmost stretch. It is on these occasions, and by these means, that obscure artisans are enabled to bring their fabrics to public view, and profitable markets. Some of the finest specimens that received the highest premiums

were made by hands before unknown, expressly for the last fair, and by consent of their employers. By such full, repeated, and continued displays, opportunity is given to observe every improvement, and to profit thereby; and thus the knowledge of new discoveries and improvements is early sattered, and brought into general use. It is here the consumer can accommodate himself with the article he requires, made in the most skillful manner. The names and numbers of the fabricators and agents are conspicuously labelled on the article. Every sale effected is beneficial both to the manufacturer and consumer. The wants of the consumer are well supplied, and the ready sale stimulates the manufacturer to fresh exertions. The extent of the sales effected by the last fair probably exceeded in value all that were brought to the exhibition rooms. Most of the first premium fabrics were disposed of at an early day, and many of the stores and warehouses from whence the articles came, were afterwards sought out, and purchases made from them to heavy amounts.

Here the progress of manufactures, from year to year, may be distinctly noted. Hitherto each anniversary has afforded specimens superior to any that have preceded. New articles have been produced, and old ones finished in greater perfection. Every fair has produced additional evidence of the accuracy and potency of labor-saving machinery. The wonderful facility with which many delicate fabrics may be multiplied, has been exemplified in giving a finish of which the human hand is totally incapable. I ought not to omit the especial and highly important benefits to this city derived from these public exhibitions. Prejudices and determinations adverse to manufacturing industry, of long duration, arising from foreign associations, and partial interests, have been, to a great extent, removed, or changed. These peaceable and wholesome conflicts, in which the competitors have strove to procure our necessities and comforts cheaper and better than before, have been accompanied with a moral influence highly favorable to patriotism and genuine American feeling, and at the same time of a most enduring nature.

But, after all, the establishment of a statistical library, (one of the late under-

takings of the Institute,) will confer on it more certain perpetuity, with accompanying utility, than all that has been done besides. If in process of time, our city should be ravaged by hordes of barbarians, the library of the Institute might suffer a similar fate with some of the works of art and genius of ancient Rome. But, we trust that no such destiny awaits us, and imagination can scarcely conceive any other destructive visitation. Knowledge, it is said, is power—and its seeds are sprouting in all parts of Christendom. It has taken deep root, grown, and spread, all over our republic. Its healing influences pervade all classes of society. The schoolmaster has been among us, and done his duty. The value of our institutions is universally appreciated, and a war of ignorance and barbarism, upon them, would be considered a war upon the people's best interests and hopes—such a common enemy would be hunted down with resistless and exterminating force. *The library of the American Institute will last as long as letters.* Its 3000 volumes already subscribed, and contributed, will double, triple, and multiply ten-fold in a few years. Compare it with some other libraries in this city—which opened with bountiful subscriptions in money—and phalanxes of wealthy names to give effect to their money and their efforts. It will be found that the Institute, which commenced without a dollar, have, since their library rooms were opened—within the last year—doubled the number of volumes procured by similar establishments in this city, commenced years before this Institute was incorporated. But the quality of the books, more than the number of volumes, is calculated to give value to our establishment. It is literally a library of practical utility, not surpassed, at this time, by more than one or two libraries in the State.

What has principally conduced to this unexampled success, is the extraordinary liberal terms held out to subscribers. Twenty-five dollars in money, or books, confer the privileges of the library, and nothing further is ever required.

Who is there, in this reading age, who cannot contribute, from their own shelves, what is required to gain access to one of the most useful libraries in the country? It was intended to benefit that class whose income would not warrant the contribu-

tions in money in the outset, and the after yearly dues, required by most other large libraries. It is in fact an exchange of a few books, already perused, for an extensive library, to which the subscriber may at all times resort, and select, for a reasonable time, a volume to take to his home. It is the design, as far as practicable, to obtain such books as relate to the manufacturing and mechanic arts, and statistics in general, embracing particularly statistics of the improvements of the last fifty years.

A general and accurate knowledge of statistics is essentially necessary, in our reasonings on political economy. And this library is intended to promote a taste for this useful, but hitherto, (in this country,) much neglected branch of human knowledge. The most ruinous consequences in legislation often follow from ignorance of facts. The premises are based on error, and the conclusions are alike erroneous. A single case will be stated as an illustration.

After the high protective duties were imposed on coarse cottons, *every day* these articles were offered for sale, of a better quality—and soon prices fell from 25 cents to 9 cents per yard, and now they are sold at $6\frac{1}{4}$ cents per yard. The advocates of home industry confidently relied on these facts, as evidences of the wholesome effects of protection, and the policy of extending similar encouragement to other unprotected articles. The free trade advocates said, no; they contended that the reduced prices of coarse cottons had been caused by the fall of cotton. They had not learned, that whether cotton was 10 or 20 cents per pound, would not, at the farthest, make a difference of more than $2\frac{1}{2}$ cents in a yard, and for a reason that is unanswerable: because 1 lb. of cotton will make 4 yards, and the reduction at that time was from 25 to 9 cents, a nett reduction of 16 cents. Had they known this, they must have readily seen that $13\frac{1}{2}$ cents, after deducting the $2\frac{1}{2}$ cents, would have been still unaccounted for. Others ascribed the fall to the reduced prices of manual labor. A very little knowledge of facts would have satisfied them, that only a fraction of manual labor is required in making a yard of this cloth, not $\frac{1}{2}$ a cent. The perfection of cotton machinery arises from its dispensing with manual labor, almost entirely. Others again said, the

decline must be attributed to recent improvements in machinery. If they had inquired, they would have found the first cotton machinery ever used in this country was in successful operation, and then successfully competing with the new concerns with their improved machinery. And if they had gone among the manufacturers of cotton, they would have found it a controverted question, whether any essential improvements had been made. The truth is, that all the reduction of prices on coarse cottons, since the tariff was made—arising out of the fall of cotton, and manual labor, and improvements in machinery, *combined*—have not varied the prices of these cottons $6\frac{1}{4}$ cents per yard. But allowing that they have reduced the price full $6\frac{1}{4}$ cents, they are still 50 per cent. cheaper than when the tariff was laid: clearly showing that each and all of the reasons specified are totally inadequate to account for the reduction that has taken place in coarse cottons.

A statesman, legislating from such mistaken views of the facts—the very ground-work of his premises—would do inconceivable mischief.

The *fact* is, that the principal cause of the low prices of cottons arises from confidence, capital, competition, industry, and economy. The unexampled high duties on imported cottons gave confidence—capital followed—skill and industry were tempted by the rewards which capital offered. Competition naturally sprung up, and the efforts of competition introduced renewed industry, division of labor, economy, and every species of saving that ingenuity could contrive. It is an everlasting truth, that the main cause of our unprecedented success in the manufacture of cottons, amounting at this time, and at their present low prices, to thirty millions of dollars per annum, is the high protection they at an early day received. If protection has had no influence on cottons—and until the minds of statesmen are immoveably settled in this principle, the rewards of our industry must forever be precarious—why did prices, when they were unprotected, continue nearly stationary, 15 years after Arkwright's jenny was introduced?*

* *Note.*—Fifteen years after it was introduced, viz. in 1805, only 1000 bales were manufactured, and in 1831, 214,882 were manufactured. The increase of the cotton manufactured for years has been equal to 25 per cent per annum.

Why have linens, silks, fine broad-cloths, and other articles, either not at all or inadequately protected, nearly maintained their former prices?

A correct knowledge of facts would have arrested innumerable pernicious heresies in political economy, that have led to legislation which has often disturbed and injured our whole social system.

Twenty years after Arkwright's cotton machinery was first introduced into the United States by Samuel Slater, we had made comparatively but little progress in manufacturing coarse cottons. They were then more than 400 per cent. higher in their prices than at this time. There was no protective tariff, and the capitalist held back—and the consumer was left to pay, from his own pocket, the cost of transporting the raw material 3000 miles, and also the cost of bringing it back in the form of goods, with land carriage, taxes, insurance, &c., besides profits to the foreign and American merchant, both. Our statesmen relied on imported theories, instead of examining facts for themselves.

This tedious illustration, drawn from the manufacture of coarse cottons, has been adduced, not only for the purpose of showing the importance of a statistical library, where correct facts and accurate statistics may be obtained, but also incidentally, to explain the effects of a high protecting tariff on the domestic manufacture of cottons, which now supply thirteen millions of our citizens with a necessary article at half its former cost; besides adding to our exports to foreign countries two millions five hundred and thirty-two thousand five hundred and seventeen dollars. [Vide Reports of Secretary of the Treasury.] If the genial influences of protection had not been applied, the manufacture of cottons would in all probability have been of as little moment, in our list of productions, as that of flax, which had not been adequately protected, and accordingly has not made the smallest progress in fifty years.* Fortunately,

statistical knowledge is beginning to find favor. Unsatisfactory conclusions, drawn from data supplied by the imagination, at war with facts, are beginning to be regarded in political economy as useless as they are in other sciences. And we are warranted in anticipating that, in the future history of this Institute, the establishment of this library at this time, and upon the principles and for the purposes contemplated, will most assuredly be pronounced one of the wisest of all our undertakings.

The foregoing embraces a brief sketch of some of the prominent things which the American Institute have already done. If the question is asked what we have done, we can refer to our written and printed communications, domestic and foreign. We can read our numerous reports in defence of adequate protection, when heresies were industriously propagated by our foreign rivals, intended for our destruction. We may also refer to our able and ample discussions before the Institute on subjects most intimately connected with our domestic industry. We can show the groves of mulberry trees which have grown from seeds we have distributed. We can conduct the inquirer to our fairs, and through our exhibition rooms, and point him to the splendid displays—the unalloyed fruits of American perseverance and ingenuity. We can show him the long list of diplomas and medals, and other rewards, the testimonials of merit, and the successful stimulants of genius. We may read to him the eloquent addresses delivered at our fairs by distinguished orators and statesmen from other States. And, above all, we can introduce him to our library, and show him in its fulness the compressed wisdom of ten thousand minds—a monument of our exertions that will reflect honor upon us as long as knowledge is valued. We have, conformably to our charter, promoted domestic industry by encouraging Agriculture to cultivate her choicest productions. We have endeavored to place manufactures on a firm foundation, that thereby they may afford agriculture a perpetual market. By the reciprocal influences of each on the other, we have increased the exchangeable commodities which give employment to commerce;

* According to Smith's history of the state of New-York, between the 9th December, 1755, and the 23d of February following, 76 days, we shipped 12,588 tierces of flax seed to Ireland.

The imports from Great Britain for the colony of New-York were then estimated at about \$480,000 per annum; they now amount to about \$20,000,000 per an.

The amount of flax seed shipped from the whole United States to Great Britain and Ireland is stated to

have been only 17,243 tierces, in 1832, though our population had increased more than six times told, and our importations into this State more than 40 times.

and, by these combined means, wealth has followed to apply to the ornamental arts. In a word, the farmer has found a market—the manufacturer has procured the desired material—the merchant has multiplied his purchases, sales and profits,—and the artist is better rewarded by the abundant means acquired by all.

It will be remembered I also proposed to name some things that are hereafter required to be done.

At an early period of this Institute a resolution was passed, with a view of obtaining reports of facts from all the different occupations and professions, and particularly such facts as would show the effect of the tariff on the qualities and prices of manufactured articles. The object of this resolution, as heretofore shown, has been partially accomplished. It is earnestly to be hoped that the whole plan will be completed. It will afford a mass of facts eminently useful to the political economist, and the practical statesman.

Policy demands that efficient means should be applied to the raising of silk, by means of bounties on the culture and exportation, if protective duties are permanently to be withheld; but the last are obviously to be preferred, and sooner or later will be resorted to. Experiments prove that our soil is propitious to the growth of the mulberry tree, and our climate congenial to the rearing of the insect that produces the silk. Ingenuity, by the stimulus which capital must bring into activity, will perfect new labor-saving machines for its manufacture. But without protection, the cautious capitalist will not encounter the competition of those immense establishments which centuries ago were nurtured into existence by government favors, as exclusive as legislation could create, and which have since been fortified by overgrown accumulations of capital, and are now filled with the most skilful workmen. The protective shield of the government must, ere long, be extended. In the mean time, let nurseries be cultivated for the spread of the plants of the mulberry, on liberal, and, if possible, on gratuitous terms.

A systematic plan should be devised for conducting our fairs. The committees of publication, arrangements, premiums, &c., should be desired to report the inconveniences and defects they have observed in conducting their departments,

for the purpose of framing a well-digested system, that shall afford a ready rule of conduct for future managers and committees. The seasonable appointment of competent, disinterested, and respectable judges, whose punctual attendance may be relied on, is an important consideration. Much of the value of the rewards bestowed depends on the standing and character of the persons awarding them. Secure inclosures should be provided for choice fabrics and delicate machinery. Security against damage would increase the number of articles, and render the competition more general and more beneficial.

Semi-annual fairs, for the purpose of sales *only*, have been suggested. It is worthy of consideration how far they might be made useful, and whether they might not be made a source of revenue to the Institute.

No *one* act, however, has contributed more to exalt the American Institute than their library. Get knowledge—get knowledge—are the watch-words of wisdom among our competitors. Our library will afford an exhaustless fountain. An effort should be made, by every member, to increase its volumes. Every member should consider it his library—every member should become a subscriber, and solicit his friends to follow his example. The value of the scrip received is of more worth than the consideration paid. A united effort by all the members of the Institute would in a few weeks create the greatest library in the State. Such an effort would confer honors on the present members as durable as the benefits which would flow from it.

The ward institutes, which have already been partially organized, next require our attention. They are no more nor less than branches, intended to operate in all the wards of this city, and eventually to be extended to the counties out of the city.

In addition to the useful information they may from time to time report, great assistance might be rendered by them in obtaining minute local statistics, and in adding to the members of the mother institute, and also in advancing the library. The importance to the country of *one* great central institution, devoted to industry and the arts, might be urged with great effect in our occasional intercourse with those who visit our city. A formal

committee might with great propriety be appointed to visit our principal cities and villages, and invite public spirited gentlemen of independent fortunes to assist in forwarding the useful objects of the Institute. Large numbers, no doubt, might be induced to become members, and also contributors to the library. A considerable number of gentlemen out of the city have already enrolled their names as members; and others, unsolicited, have subscribed to the library. By frequent communications with the contemplated branches, and by cultivating a correspondence with literary and scientific institutions, and individuals, generally, in this and foreign countries, the earliest information may be obtained of all new discovered materials, and new and useful processes in manufacturing.

There is a variety of things, in relation to the Institute, which would by many be classed among small and unimportant matters, that may be done or neglected without any material injury.

But he has lived and observed to little purpose, who has not learned that many of the great operations of business, public and private, are controlled by them. Punctuality, by many, is classed among these unimportant matters. The reverse of this is the fact. The success of all public and private institutions depends much on the punctuality of their officers. The want of punctuality does not end with the delinquent; it discourages and disheartens those who *are* punctual, and sometimes creates ruinous derangements. One failure to form a quorum is often succeeded by another; and much exertion is often required to finish the business, which might have been prevented by a punctual attendance of a single individual a few minutes. The tardiness of one small wheel may throw an immense machine completely out of gear.

Much of the precious time of the Institute has on former occasions been consumed in prolonged debates, on questions of order, law, and constitutional construction, often totally irrelevant. These discussions are particularly provoking to our best business men—members who trouble themselves very little about forms, *if* the work required to be done *is* done, and *well* done.

It is matter of congratulation that this useless habit is almost entirely corrected.

Some regular plan, and a notice of the business of the coming meetings previ-

ously announced, would, it is believed, be beneficial. Members might then examine and reflect on the subjects to be brought under consideration. The discussions would then exhibit the results of investigation, and be profitable to the hearers. The frivolous questions discussed, and the protracted and useless verbiage expended on these questions, has formerly driven valuable members from the Institute. A previous assignment of business, and notice of the same, would have a powerful tendency to correct this evil, and add to the respectability of the Institute.

By extending the influences of the Institute into the country, among the manufacturers, they may induce their agents, the domestic dealers, in the city, who are receiving such liberal commissions from the success of manufactures, to enlarge their views, and lend a helping hand at our fairs, and not suffer the great interests of cottons and woollens to be meagerly represented by a few scanty specimens. If these domestic agents are deterred by the trouble and expense of the carting, or the fear that the goods sent may be rumpled, let the owners make their agents good. They will be more than compensated by the increased demand and ready sales of the exhibited articles.

Not only individual, but legislative aid, should be invoked in favor of the objects contemplated in our charter. The utility of statistical knowledge has already been commented on. Our legislative documents contain a mass of undigested statistics, obtained by the State at great expense, which, if selected, digested, indexed, and published, would be invaluable. It is now totally useless to nearly the whole of the community.

The New-York Annual Register, compiled by the industry of one of our members, is now almost the only work from which even a partial knowledge of the resources and capabilities of this State can be obtained. Some competent person should be employed, to arrange the information already procured, and supply the deficiencies. The State would be indemnified ten-fold for the expenditure it would require—by the discoveries it would promote—the emigrations it would invite—and the increased demand it would create for our improved and unimproved farms. A memorial embracing this subject, and the subject of silk, pray-

ing for an appropriation, ought to find favor with an intelligent legislature.

The late determination of the Institute, in favor of a course of lectures, from members of the Institute, *exclusively*, is calculated to do good. Those whose habits do not qualify them for extemporaneous efforts, are often in possession of valuable ideas. Every member of the Institute can write, and read. Most of the members have important ideas, particularly in relation to their own everyday concerns, and business. The intention of the proposed course of lectures is to bring these ideas into the possession and use of the Institute, from minds of different structures, habits, professions, and inclinations. They are intended to be the offsprings of experience, and the practical suggestions of actual business. They will be novel to most of the members, and entertaining for their novelty. They will be useful, because they are derived from experience, the great source of useful knowledge and human improvement. Such a collection of facts as will naturally be collected, opened to the examination of a variety of inventive minds—and our patent office shows we are not wanting in them,—cannot but suggest new thoughts, and lead to new improvements. A single glance has often induced a new principle, or led to a new combination of immeasurable consequence. It was, no doubt, an apparently accidental thought that led our countryman, Whitney, to the construction of his cotton gin. *That* thought, subjected to the patient workings of ingenuity, and perfected by practical skill, has doubled the value of lands, whose inhabitants are sufficiently numerous to constitute a nation, and has enabled the United States to sustain the balance of trade with the commercial world. It is not intended by these lectures to exhibit orators. They are not intended to ingratiate some favorite candidates for office with the people. But to give confidence to plain unassuming middling men, and to induce them to put on paper, and read to their brethren, such facts, and reflections, as they in their respective vocations have gathered—expressed in the style, and language, in which they think, and speak, before they have undergone the expanding ordeal of declamation. We desire the native ore directly from its bed, and not after it is reduced to a glittering cobweb

by the gold-beater. A collection of such discourses would be sought, and read, with satisfaction and profit. They would contain knowledge not found in books. Lectures so conducted will give confidence to those who prepare them; and, in process of time, men now obscure, and unthought of, will learn to reason, deduce principles, and march *direct*, to conclusions, with the accuracy of philosophers. This course of lectures is intended to form, in the Institute, an undisputed palpable feature of republicanism: not that sort of republicanism which is assumed by partisan politicians, which *lives* only while the polls are open, and expires when they close. But that republicanism, which at all times recognizes, in the members of this association, a perfect equality of privileges, and which desires every member to participate equally in all its performances, honors, and advantages.

An early effort should be made for the establishment of a periodical Journal,—weekly, monthly, or even quarterly. It would collect and distribute *knowledge*; make the objects and operations of the Institute better understood; increase its members, and thereby its ability to accomplish the designs contemplated by its act of incorporation.

A collection of models of machines, and specimens of art, has, as it were, spontaneously commenced. The library rooms now constantly exhibit some of the fruits of art and genius. This commencement of a cabinet, interesting and useful, should be nurtured and sustained. It will present a miniature display, in this great central emporium, of the improvements of the age, convenient for examination. Competent persons may be appointed to explain their properties and uses. Why should not New-York contain such an establishment? Paris has her *Conservatory of Arts and Trades*. It is admired by all strangers who visit that interesting city. It contains a collection of all the instruments and machines used in the sciences and trades throughout France; all the inventions which have obtained rewards from the French Government, or public bodies, as well as patents—all find a place in this repository; and also many of foreign origin. Foreigners are admitted by merely showing their passports. A man attends twice a week to give descriptions

to visitors. The National Repository in London, with similar objects to our Institute, is patronized by the King. The managers and inspectors are selected from the most distinguished men in the kingdom. In the list of officers are members of Parliament, Lords, and Commons, members of the Royal Society, and many of the first philosophers and scholars in the British empire. Most of the great cities of Europe have repositories for similar purposes. Let it not be supposed, because *we* are wanting in noblemen, that we cannot support such an establishment. We have nature's noblemen. The people are our noblemen. They have shown their devotedness to *our* and *their* cause. For seven successive years they have patronized and upheld the American Institute. They are not untaught operatives, but an enlightened, reflecting people, who not only know how to use their hands, but are familiar with principles, and whose chances of making important discoveries must be proportioned to their knowledge.

The world does not present a position as auspicious for a great and infinitely varied museum of useful curiosities as our city. How propitious its tendency to promote that alliance of art and science, so conducive to useful discoveries and improvements! How greatly must it contribute to elevate still more that portion of our fellow citizens whose occupations, within a century, were considered degrading! They were for ages excluded from the benefits of science, the great vivifier of the arts. The laboratory was kept far off from the workshop; and the fabricators of our comforts were suffered to group in ignorance and darkness. Science has at last entered the factory, and the shop, and a new era in productive labor has commenced. The philosopher, instead of being employed among wild theories and visionary fancies, is busy in selecting and arranging *facts*, on which to employ his philosophy, and base his arguments. The race of schoolmen are defunct. The hunters after the philosopher's stone, the seekers after perpetual motion, are rarely heard of. The train of abstract reasoners, the race of alchemists, with their cotemporaneous witches, hobgoblins, and ghosts, have sunk into oblivion together. The philosophy of common sense has succeeded; well attested facts and analogies hold the place

of abstract visions and logical subtleties. Every thing is submitted to the ordeal of experiment—"weighed, measured, and analyzed." Every step that precedes conclusions is fortified by demonstration. Accordingly, our improvements within the last fifty years have surpassed *all* that had gone before. Each new improvement has led on to others. Every new discovery has opened new passages into the endless labyrinths of nature.

I have thus given a rapid notice of what may be done. Standing as we do on the vantage ground, elevated as it is by discovery and invention, are our anticipations all visions, or are they destined to be realities? Are we to suppose that we have reached an impassable barrier, erected against future improvement? Before the invention of the mariner's compass, who could have conceived that an inanimate substance could be found that would be a safe guide on the trackless ocean in the darkest night? Before the telescope was invented, who could have conceived of an instrument that would light up a way in the heavens, ten thousand times farther than any human eye before had ever penetrated? And may not some future discovery enable those who come after, to penetrate the hidden properties of matter, and the undiscovered agencies of nature, with equal success? What enthusiast, before it was done, would have believed that machinery could do the work of forty millions of people? This was effected, several years since, on one comparatively small island. To have once hinted that the lightning could be disarmed of its terrors, and made harmless, by any human contrivance, would have been blasphemy. The wonders of steam we have all witnessed, on the land and on the water. Its powers began but yesterday to unfold; now guided by genius, it propels the magnificent ship "against tides and tempests." It enables the freighted boat to buffet the impetuous currents of our mighty rivers,—ascending sure, steady, and direct, to the place of destination. It wings the car in its rapid course on the railway, from city to city, and from country to country. To facilitate the discoveries and operations of the miner, rivers by its potent workings are disgorged from the deep caverns of our earth. In our forges we may see it "seizing with mechanic claws ponderous

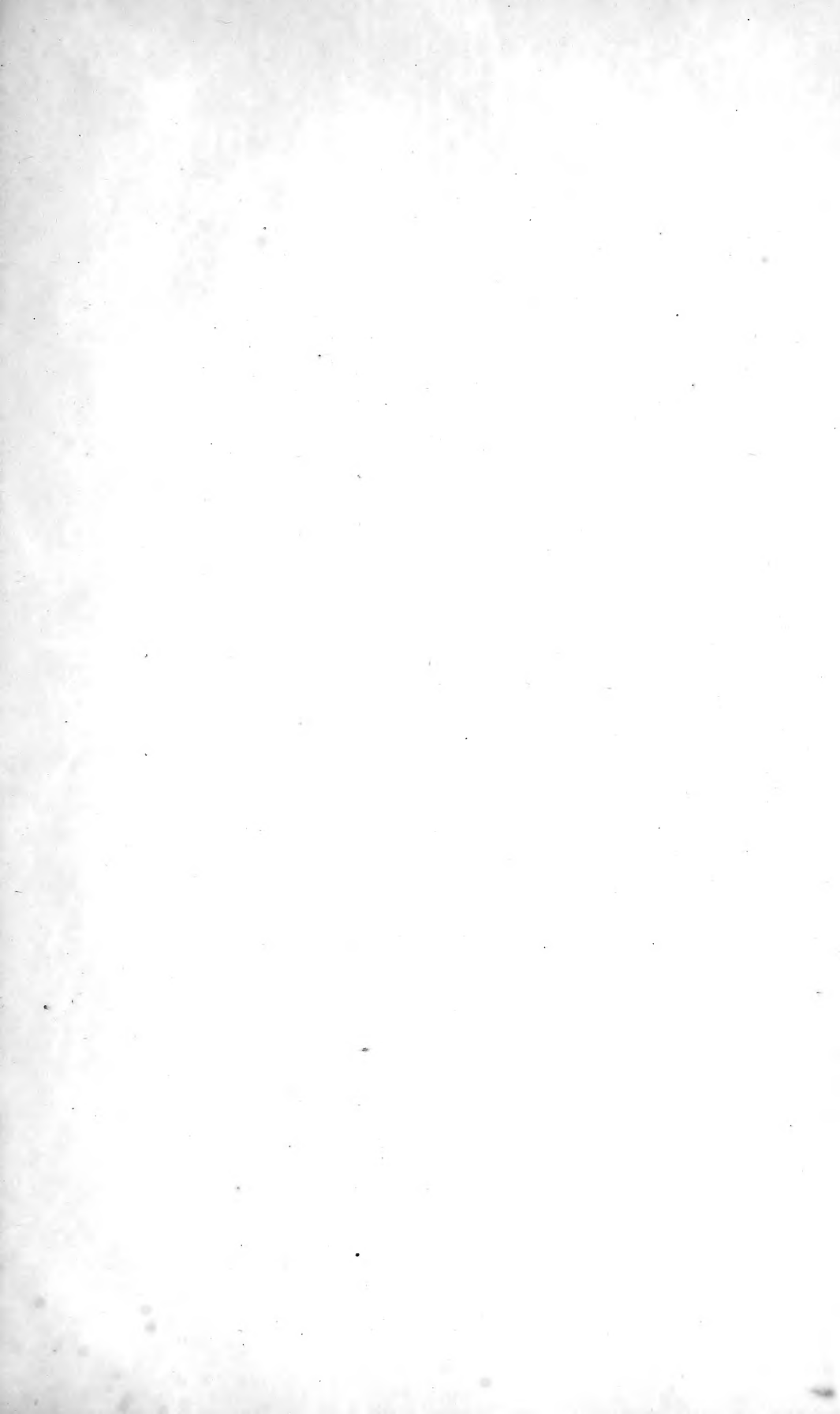
masses of iron, and beating them into bars, or pressing them into plates, and cutting them in pieces, as if they were ribbons." Steam, exhibited in its minuter operations, in the factory, is not less wonderful : attenuating the smallest fibres of our cotton with a regularity, delicacy, and accuracy, that no human hand could accomplish, and which nothing but the unerring instinct of the silk-worm, or the spider, can equal. Such are the instruments of this same power which knowledge has unfolded and subjected to the mastery of man. What is there too unwieldy for its strength, or too delicate for

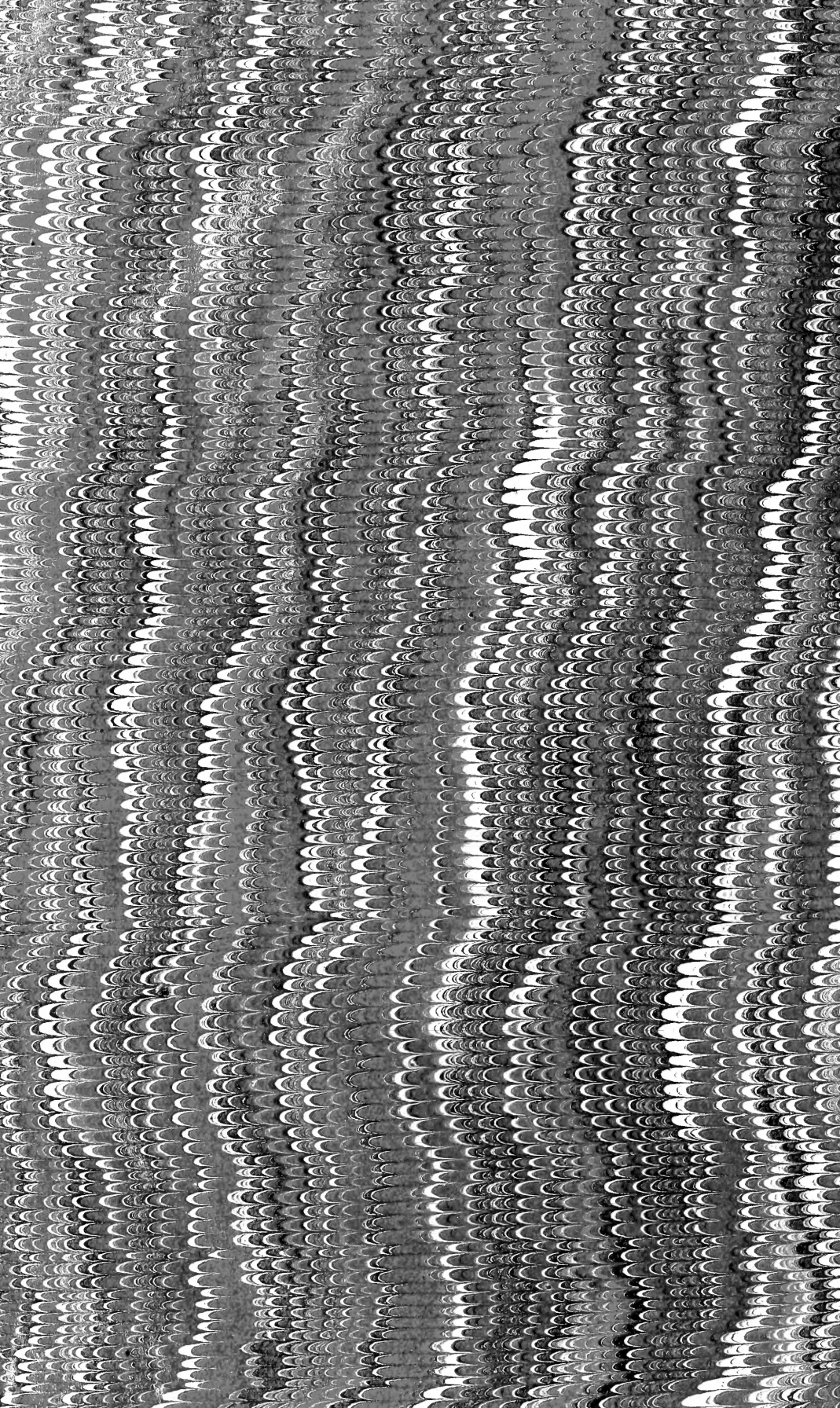
its touch? But these are only the precursors of other still more sublime accomplishments reserved for human genius—the dawnings of that perfection which futurity will unfold.

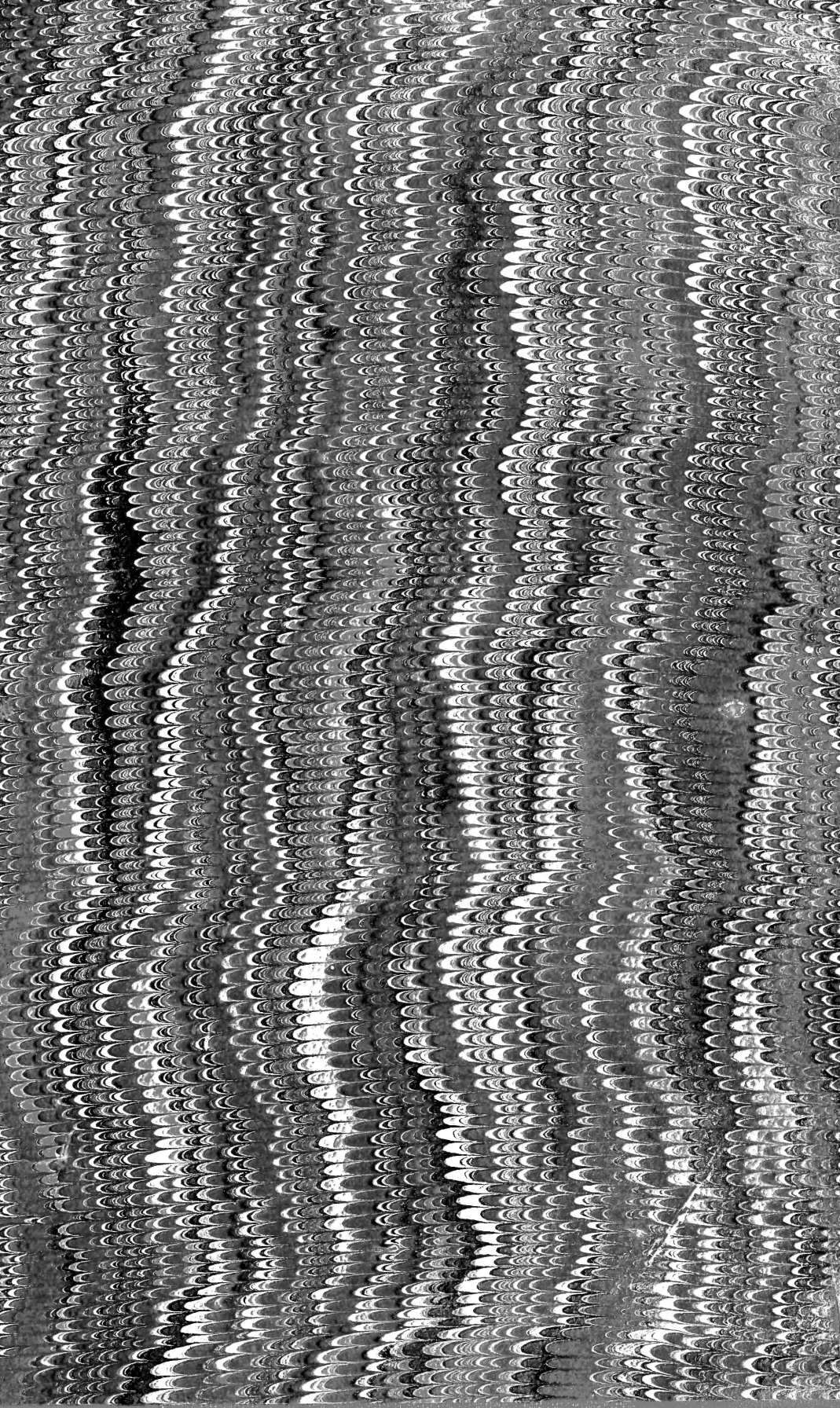
Let us, one and all, seize the opportunity, and apply the means which Providence has conferred upon us, by employing our best exertions and talents to stimulate and quicken invention, by spreading knowledge, and instigating emulation ; and thereby improvement will be accelerated, and the proud dominion of mind over matter will be still further extended.











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